SPACEPORT INTEGRATED MASTER SCHEDULE (SIMS)

KSC-PLN-5000_SIMS

Spaceport Integrated Master Schedule
Concurrence Sheet

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CHANGE LOG

Date	Revision	Description
05/31/2016	Basic	This document is developed as a result of the 2015 KSC reorganization.
08/31/2017	A	This document was revised for the following reasons: • Resolution of previously documented TBD 5.1 • Updated Figure 1, Schedule Information Flow Diagram to reflect current-day process • Deleted all references to the Weekly Spotlight chart within the KSOP briefing due to change in KSOP briefing process • Deleted Appendices A, B, and C, all examples of the SIMS integration tools; no longer necessary
5/15/24	B	Added the KSC Commercial Crew Program Manager and updated signature blocks. Generally, the process to manage the Spaceport has matured since the last revision and updates were made throughout the document to capture those changes. Additionally, modified the document to capture additional workload responsibilities of the contractor with the responsibility of spaceport integration.
06/25/2025	C	• Hyperlinks and formatting corrected throughout. Clarified the definition of “spaceport partner(s)”. • Modified to align with SI reorganization that became effective 12/1/24. • Resolved TBD 2-1, adding specific guidelines regarding transportation operations, specifically self-escort, and added the reference to KNPR 6000.1, KSC Transportation Support System Manual. • Resolved TBD 2-2, adding the reference to KSC-PLN-1300, Integrated Outage, Coordination, and Management Plan; the Spaceport integration contractor shall use this outline to further develop, implement, and manage the integrated outage process. • Added section 2.7 Excavation Restriction Waiver Coordination and Approval to document the various resources supporting the reduced restrictions associated with commercial missions and how it applies to the excavation permitting process. • Added section 2.8 KSC Readiness Reporting to Space Launch Delta 45 • Added the Master Schedule Conflict Resolution Board (MSCRB) to section 6.1, Scheduling Conflict Resolution.

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1.0 INTRODUCTION

1.1 Purpose

The Kennedy Space Center (KSC) has transitioned to Earth's premier spaceport supporting National Aeronautics and Space Administration (NASA), other Government agencies, and commercial space launch providers. Hereinafter, any entity using the spaceport; including, but is not limited to NASA, NASA Programs, Department of Defense, and other Government and Commercial Agencies may be referred to as "spaceport partner." To enable successful operation of this spaceport, KSC-PLN-5000_SIMS is established to document the processes and supporting products used for the planning of all NASA and Partner operations and activities to ensure efficient use of resources and provide insight into potential resource shortages or conflicts.

1.2 Scope

This plan applies to operations and activity associated with NASA and Partner utilization of spaceport resources. For operations and activity contained within a NASA or Partner-managed allocated facility and/or facility boundaries which do not impact other operations or resources at the spaceport, this plan is typically not applicable but users are encouraged to confirm applicability with the Spaceport Operations Office (SI-O) during the planning phase. NASA and Partners integrate all operations and activity within their assigned facility/facility boundaries unless agreed to otherwise. While SI-O, within the Spaceport Integration and Services Directorate (SI), or an SI-O designated representative (e.g., contracted personnel), maintains oversight for integration across the spaceport, the SI support contractor, responsible for spaceport integration, manages most of the processes described within this document.

1.3 Applicability

This plan is applicable to all NASA and Partner operations and activity conducted at the spaceport. Internal operations and activity performed by NASA and Partners not requiring any outside resources are not subject to the stipulations identified in this plan unless otherwise conveyed by SI-O personnel, or an SI-O designated representative.

1.4 Applicable Documents

a. Kennedy Center Agreement (KCA)-4205, Prescribed Burn Memorandum of Understanding

b. Kennedy NASA Procedural Requirements (KNPR) 6000.1 KSC Transportation Support System Manual

c. Kennedy Documented Procedure (KDP)-KSC-P-1864, Partnership Development Process

d. KDP-KSC-P-1302, Excavation and Waiver Process

d. KDP-KSC-P-9090, Task Order Request (TOR) and Task Plan Process

e. KSC-PLN-1300, Integrated Outage, Coordination, and Management Plan

f. IM-OSC-P-2109, GYCC Frames Access Control

g. PPS-P-0004, Electrical Systems Power Switching Procedure

2.0 KSC INTEGRATION AND OPERATIONS

2.1 Spaceport Integration Processes and Products

Spaceport integration processes (e.g., Daily KSC Spaceport Operations & Weather Tag Up and SIMS data call via e-mail) provide insight and situational awareness into operations and activity at the spaceport. That insight and situational awareness are used to produce the SIMS and other operational planning products. The objective of SIMS and other products is to assist spaceport Partners in schedule development related to coordination, deconfliction, and avoiding and/or mitigating impacts associated with the operations at the spaceport. Spaceport integration processes are as follows:

a. Provide planning products to spaceport partners in relation to NASA shared resource utilization.

b. Inform all spaceport partners of planned spaceport activities to mitigate operational challenges and/or conflicts and support efficient planning.

(1) Attempt to prevent an operation from affecting other operations and/or safety.

(2) Promote cooperation between the spaceport partners to address any challenges and/or conflicts that could impact schedules.

c. Promote situational awareness of spaceport operations and activity in support of the following:

(1) Efficient and effective spaceport management.

(2) Visibility of KSC daily risk posture and resource commitment.

(3) KSC Senior management.

(4) First responders.

2.2 Partner Services and Integration

SI-O personnel, or an SI-O designated representative (e.g., contracted personnel), retains overall responsibility for the contractor-maintained SIMS and other related products. SIMS content originates from insight into NASA and Partner operations and activity, and access to their generated products and services. Those products and services include, but are not limited to, the following:

a. Replies to the “SIMS data call” via e-mail.

b. Active participation in the SIMS Coordination Meeting.

c. Internal schedule reviews.

d. TORs and Task Plans when submitted for reimbursable services.

e. Review of the KSC Daily News.

f. Review of contractor-provided transport logs.

g. Review of NASA program weekly notes and related publications.

h. Baseline and updated concepts of operations submitted in accordance with partnership agreements.

i. Baseline and updated program plans.

j. Meetings (face-to-face and/or teleconference) with the Space Launch Delta 45/Eastern Range (ER) Scheduling Office.

k. Coordination with external entities such as Florida Department of Transportation (FDOT), United States Fish and Wildlife Service (USFWS), Merritt Island National Wildlife Refuge, Canaveral National Seashore, Naval Ordnance Test Unit, Space Florida, etc.

2.3 Spaceport Integrated Master Schedule

SIMS provides insight and situational awareness into spaceport partner operations and activity to mitigate and/or avoid operational challenges, conflicts and impacts between the spaceport partners, and with use of spaceport resources. Operations and activity that potentially impact a spaceport partner include:

a. Operations and activity that extend beyond a spaceport partner's assigned facility or facility boundaries, whose hazardous attributes or facility restrictions prevent access to the user assigned area(s), and/or where hazardous materials could propagate outside the spaceport partner assigned area boundaries due to an incident. Such scenarios include, but are not limited to, the following:

(1) Launch, landing, and/or recovery operations at the spaceport and Cape Canaveral Space Force Station (CCSFS).

(2) Major milestone operations testing (e.g., tanking tests, wet dress rehearsals, launch abort testing, and static fire tests)

(3) Use of cryogenic fuels, hypergolic materials, or ammonia fluids requiring a safety clear of 50 feet or greater.

(4) Ordnance, explosives, or solid propellant operations and activity requiring a safety clear of 50 feet or greater.

(5) Operations and activity involving nuclear materials, systems, and/or payloads and/or other radioactive materials.

(6) Unmanned Aircraft System/Unmanned Aerial Vehicle (e.g. "drone") operations.

(7) Class 3 and Class 4 laser operations not confined to a specific location within a facility or facility boundary.

(8) Significant flight hardware or facility milestones and first-time major events (e.g., flight hardware integration, facility operational readiness, Certificate of Occupancy, or major ground system verification, validation, acceptance, and activation).

(9) Operations or activity with the potential to adversely impact the spaceport (e.g., oversized transport operations).

b. Prescribed burn operations.

c. Air Quality:

(1) Air quality concerns or restrictions resulting in specific routing of flight hardware or significant science items arriving at, passing through, or departing from the spaceport.

(2) Increased awareness and monitoring of facility air quality at specific facility locations due to the presence of flight hardware or significant science items with documented air quality restrictions/requirements. This awareness and monitoring include instances where infrastructure failure results in a change in posture from the original restriction/requirement.

d. Flight hardware or ground support equipment delivery at the spaceport and subsequent transport on or through the spaceport as permitted, including transport of hardware/equipment loads exceeding the road and bridge width and weight restrictions.

e. Gaseous nitrogen (GN2) and gaseous helium (GHe) pipeline support (i.e., usage) requiring large quantities of those commodities (e.g., launch activity, major milestone operations testing as previously defined, or significant Environmental Control Systems testing required prior to major milestone or launch operations).

f. Maintenance of Traffic operations, such as roadblocks or road/lane/bridge closures.

g. Operations requiring a Federal Aviation Administration (FAA) defined restricted airspace designation (R2932, R2933 or R2934).

h. Major utility outages (e.g., potable water, electricity, heating, ventilation, and air conditioning, compressed air, natural gas, and information technology [IT] and communications) from institutional services that affect multiple facilities or areas.

i. Construction activity and/or oversized construction equipment/material moves.

j. Operations requiring Radio Frequency (RF) silence or restrictions.

k. Public Affairs activity, guest operations, or media-related events.

l. NASA-required institutional maintenance activities, performed by NASA contractors, and contained within partner-managed facilities and/or facility boundaries.

2.4 Prescribed Burn Operations Coordination

SI-O personnel, or an SI-O designated representative, shall communicate, coordinate, and cooperate with USFWS regarding prescribed burn objectives (e.g., fire management units) and any resources and/or restrictions (e.g., roadblocks) needed from KSC to safely execute the prescribed burn as agreed to in KCA-4205. An overview of KSC responsibility for prescribed burns at KSC is as follows:

a. Participate in a monthly meeting with KSC (e.g., NASA and Partners), CCSFS, USFWS, and any other stakeholders to convey work completed and discuss any future plans for prescribed burns, current launch schedule and any events that may impact and/or preclude burn plans.

b. Maintain a list of scheduled prescribed burn restrictions and communicate those restrictions to CCSFS and USFWS. KSC is authorized to modify (e.g., increase) restrictions for prescribed burns on KSC property as necessary for special payload and transport restrictions.

c. Share any evaluation tools used for modeling, monitoring, and education/training with stakeholders.

d. Maintain and share any documentation conveying prescribed burn processes and schedule detail.

e. Initiate an “Information-Only” notification to CCSFS a minimum of three business days prior to the scheduled KSC prescribed burn activity.

f. Initiate an internal KSC notification and coordination request to the current KSC Prescribed Burn Distribution List a minimum of three business days prior to the scheduled KSC prescribed burn activity.

g. Upon receipt of CCSFS prescribed burn notifications:

(1) Acknowledge receipt of prescribed burn notifications by replying to CCSFS no later than 24 hours prior to the scheduled burn activity.

(2) Distribute CCSFS prescribed burn notifications to KSC as an “Information-Only” notification to the current KSC Prescribed Burn Distribution List.

h. Maintain a list of any “smoke-sensitive” facilities or operations on KSC that may require special considerations and procedures for burn activity within CCSFS boundaries and provide that list to CCSFS no later than 24 hours prior to the scheduled burn activity.

For Prescribed Burn restrictions related to flight hardware and mission payload transportation, processing facility/launch site and launch operations, reference KCA-4205. Contact the flight hardware or payload customer for clarification regarding their contamination control requirements, as necessary.

The SIMS products, as described/outlined in Section 3.0, shall be used to schedule, and illustrate the planned prescribed burn activity to ensure proper notification to KSC personnel and commercial partners for awareness.

2.5 Transportation Operations Coordination

Spaceport partners work with SI-O personnel, or a SI-O designated representative, on requests for transportation/movement of payloads (e.g., spacecraft, flight hardware, payload/cargo, ground support equipment, construction equipment/materials) and hazardous materials (e.g., fueled spacecraft) into, out of, and throughout the KSC spaceport. The spaceport partner and SI-O, in conjunction with KSC Protective Services, determines what support (e.g., Security Police Escort) and KSC permitting (e.g., oversized/overweight payloads) requirements related to the transport/movement operation are required.

Determining Security Police Escort/assistance during transportation/movement at KSC is based on the transport vehicle/load configurations and conditions. CCSFS and KSC have worked closely to ensure transportation policy and guidance are in agreement between installations.

For requirements related to transportation/movement operations at KSC, reference KNPR 6000.1 and any appropriate NASA/KSC/contractor documentation. KNPR 6000.1, Appendix I addresses the self-escort policy specifically.

SI-O personnel, or an SI-O designated representative, review the SIMS integration products, as described/outlined in Section 3.0, to ensure the following:

a. No unresolved operational challenges and/or conflicts.

b. The transport route does not cross into a hazardous area.

c. No road or bridge closures or construction projects that may impact the planned transport path.

d. Requestor has an approved KSC permit that corresponds to the request (e.g., transport dimensions, origination point, destination point, and route to be used.

e. All transport operations that include public roads outside of KSC/CCSFS secure boundaries (“outside of the gate”) are required to follow applicable FDOT standards and local, state, and federal laws.

2.6 Spaceport Integrated Outage Coordination

SI-O personnel, or an SI-O designated representative, are responsible for communicating, and coordinating planned outages of KSC utilities (e.g., potable water and power), services (e.g., institutional communications), and resources (e.g., GHe and GN2) with spaceport partners to mitigate and/or avoid maintenance and operational challenges, conflicts, and reduced capability or availability during spaceport partner activity. In the event of an outage, planned or otherwise, maintain communication with the affected spaceport partner(s) by providing progress or status related to restoration of those utilities, services, or resources.

The SIMS products, as described/outlined in Section 3.0, shall be used to schedule, and document any/all planned utility, service, and resource outages to ensure proper notification to KSC personnel and Partners for awareness.

Based on the increase in operations and launch cadence from spaceport partners and the increased number of Partners operating at KSC, the maintenance, repair, upgrade, and

improvement of KSC's aging infrastructure (e.g., utilities) and expansion of KSC capabilities has been significantly impacted. KSC-PLN-1300 was created to document the governments expectations regarding this challenge. The Spaceport integration contractor shall use this outline to further develop, implement, and manage an integrated outage process to minimize challenges, conflicts, and impacts while maximizing KSC's capability, availability, and supportability of spaceport partner activities.

2.7 Excavation Restriction Waiver Coordination and Approval

SI-O personnel, or an SI-O designated representative, are responsible for coordination and communicating waiver approval for excavation restriction waivers (reference KDP-KSC-P-1302). Key stakeholders (e.g., Facility infrastructure, Communications and IT, Weather instrumentation, and propellants and life support) are to be advised of the waiver request and request the stakeholder's approval; a single negative response, or denial, from the stakeholders results in the denial of the waiver request. A concerted effort has been made to reduce the restrictions surrounding non-crewed, commercial missions flying on rockets with certified autonomous flight safety systems. In addition to KDP-KSC-P-1302, there are other documents that outline this approach:

a. IM-OSC-P-2109

b. PPS-P-0004

2.8 KSC Readiness Reporting to Space Launch Delta 45

SI-O personnel or an SI-O designated representative, consolidates input, reviews the SIMS, and constructs a report that communicates KSC's ability to support major milestones (e.g., Static Fire Test, Wet Dress Rehearsal, Tanking Tests, etc.) and launch operations to Space Launch Delta (SLD) 45 as outlined in the "Launches, Landings, Major Ops" section of this plan. This report is provided to SLD 45 by the end of 1st shift each Wednesday and represents a 30-day period. SLD 45 utilizes this information as input necessary to support their Launch Readiness Review process.

Subject matter experts from the following functional areas provide input by the end of the 1st shift each Tuesday for consolidation into the KSC readiness report:

a. Power & Heating, Ventilation, and Air Conditioning

b. Propellants & Life Support

c. Communications & IT

d. Protective Services

e. Weather Instrumentation

Subject matter experts are responsible for reporting any changes in their status with the potential to impact an upcoming launch or major milestone event to the SI-O, or an SI-O designated representative, who will issue a by-exception email to SLD 45 describing the out-of-cycle change to any of the functional areas, as necessary.

3.0 SPACEPORT INTEGRATED MASTER SCHEDULE INTEGRATION PRODUCTS

The SIMS suite of products provide a consolidated synopsis of significant activities and events across the spaceport. The SIMS presents a high-level view of operations and activity at the spaceport and serves as an operational planning tool providing insight and situational awareness. Additional graphical tools (e.g., Geospatial SIMS [GeoSIMS]) provide a visual overview of significant work and potential impacts throughout the spaceport. These integration tools are available and accessible from the Inside Kennedy - Home (sharepoint.com) site. These tools and much more may also be accessed from the Spaceport Integration Center (sharepoint.com) site.

3.1 Spaceport Integrated Master Schedule

The primary SIMS products are a thirty-day (30-day) and a six-month (180-day) Gantt Chart style schedule organized by operations and activity, and geographical areas as main categories with additional subcategories for refinement. Categories and subcategories include, but are not limited to, the following:

a. Launches, Landings Major Operations (KSC and CCSFS).

b. Propellants and Life Support.

(1) GHe and GN2 Pipeline Usage.

(2) Self-Contained Atmospheric Protective Ensemble Operations.

(3) Portable Scrubbers.

(4) Gaseous Oxygen Tankers.

c. KSC General.

(1) Category B Excavation Restrictions.

(2) Frequency Management.

(3) Contamination Control Areas.

(4) Prescribed Burns.

(5) Major Construction.

(6) Other Events.

(7) Significant Outages.

(8) IT.

(9) Laser Operations.

(10) Unmanned Aircraft System/Unmanned Aerial Vehicle.

(11) Road/Bridge Work.

(12) Hardware Movement.

(13) Shuttle Landing Facility.

(14) Booster Fabrication Facility.

(15) Commercial Payload Processing.

d. Industrial Area.

e. Launch Complexes CCSFS (SLC).

(1) SLC-13:

(a) Current: LZ1 and LZ2.

(b) Future commercial launch provider (post-SpaceX agreement).

(2) SLC-14.

(3) SLC-15.

(4) SLC-16.

(5) SLC-20.

(6) SLC-36.

(a) SLC-37.

(7) SLC-40.

(8) SLC-41.

(9) SLC-46.

f. Launch Complexes KSC.

(1) LC-39A.

(2) LC-39B.

(3) LC-48.

g. LC-39 Vehicle Processing & Support Area.

(1) Vehicle Assembly Building (VAB) Turn Basin Wharf.

(2) Commercial Crew (Boeing C3PF)

(3) Exploration Ground System (VAB, Rotation Processing and Surge Facility, General)

(4) United States Air Force-Boeing (OPF 1/2)

Although the SIMS maintains six months' worth of data, the daily focus is on the upcoming thirty days (30-days) with an expanded focus out to ninety days (90-days). In addition, shorter-term schedules can be developed and included to show higher fidelity views of operations and activity. The SIMS is the master integration tool in support of other spaceport integration products and tools.

3.2 Kennedy Spaceport Operations Picture

The Kennedy Spaceport Operations Picture (KSOP) is an essential part of the overall spaceport integration effort and provides KSC senior management/leadership with a condensed overview of spaceport operations, activities, and events in the context of an overall spaceport schedule consisting of two major components: a two-week look-ahead at significant operations and a year-long look at planned launch events. The KSOP is developed and updated by the SI support contractor; the DRAFT KSOP is provided to SI-O no later than 0800 on Monday mornings, or Tuesday mornings when Monday is a government holiday, and presented to senior management/leadership by SI-O personnel at a weekly KSC Senior Staff meeting.

The two-week calendar section of the KSOP depicts content described in Section 2.3 and derived from the SIMS products. The focus is on discrete events that occur within that two-week period. Additional charts may be developed and included to further explain operations outlined in that two-week section.

The KSOP year-long timeline depicts planned launch events or ER Support only.

3.3 Geospatial Spaceport Integrated Master Schedule

The GeoSIMS is a visualization tool supporting spaceport integration by depicting a geographical representation of operations activity and events overlaid on a map of the spaceport. A GeoSIMS image represents a single day of operations activity and events and contains up to a two-week period of single day images the KSC workforce can select, using a scroll bar at the bottom of the page. The primary purpose of the GeoSIMS is to support operational planning and situational awareness at the spaceport to help identify issues, challenges, or conflicts, such as, but not limited to, exclusion zones for launches, active prescribed burn areas, no-smoke buffers, and travel paths for hardware. The spaceport integration contractor gathers data and information to be displayed on the KSC and CCSFS base maps. Additional data layers and functionality of the visualization tool are added as stakeholder needs are realized and the capability exists.

3.4 Spaceport Integration In-Development Applications

The following in-development applications are potential additions to the suite of SIMS Integrated Tools to further effective communication to convey and retrieve information regarding operations, activity, and events at the spaceport. The intent is to accommodate spaceport partners with quicker and easier access to SI-O products. Applications implemented and included in the suite of tools is To Be Determined **<TBD 3-1>** and to be identified in a future revision of this document upon successful implementation. Tools currently identified for development are as follows:

a. SI Mobile Application

A list of capabilities is **<TBD 3-2>** for each application and be identified in a future revision of this document upon successful implementation. Capabilities critical to spaceport partners for development purposes that may be included in these tools are listed, but not limited to:

1. GeoSIMS.

2. SIMS.

3. Weather forecasts, advisories, watches, and warnings.

4. Operational updates (e.g., Falcon 9 Static Fire Test and Launch, and prescribed burns).

5. Safety Clearance/Controls.

6. Road Closures/Roadblocks.

7. Emergency Operations Center notifications.

8. Hardware movement impacting the normal flow of traffic.

4.0 SPACEPORT INTEGRATED MASTER SCHEDULE UPDATE PROCESS

4.1 Schedule Inputs

The spaceport integration contractor manages the SIMS process. SIMS updates are requested from NASA and Partner personnel responsible for planning and scheduling within their respective organizations continually. Updates to the SIMS are provided, via email, in a PDF attachment, several times weekly due to government access restrictions preventing a Partner's access to SIMS using the SI SharePoint Site. The SI-O Senior Operations Manager, SI Spaceport Operations Managers/Partnership Integration Managers, Partner integration personnel, and spaceport integration contractor assist in gathering that schedule information and coordinate with spaceport partners to ensure information is conveyed in a timely manner. The SI-O Senior Operations Manager oversees the contractor's process for incorporating the information provided into the SIMS and GeoSIMS.

4.2 Spaceport Integrated Master Schedule Coordination Meeting

To facilitate the update process, a SIMS Coordination Meeting is held weekly with the potential to increase meeting frequency as the operational tempo at the spaceport dictates. The SIMS Coordination Meeting, facilitated by the contractor, serves as a forum to identify potential challenges and/or conflicts with support and services. Challenges and conflicts may be resolved at this SIMS Coordination meeting, or alternative spaceport user meetings initiated to promote a resolution to those operational challenges or conflicts. Attendees at the SIMS Coordination Meeting include the SI-O Senior Operations Manager, SI Spaceport Operations Managers/Partnership Integration Managers, partner integration personnel, and representatives from each spaceport partner.

5.0 FEDERAL AVIATION ADMINISTRATION-LICENSED COMMERCIAL LAUNCHES

The SI-A and SI-O offices are responsible for assisting spaceport partners in coordinating and scheduling FAA licensed launches and launch activity at the Spaceport. Prior to those efforts, the provider must establish a partnership agreement with KSC utilizing KDP-KSC-P-1864. Once a partnership agreement is established with the Partner a TOR (KDP-KSC-P-9090) is required for requests regarding Spaceport resources and support for all launch-related operations, activities, and events. SI-A/SI-O expects the provider to submit a TOR at least 90-days in advance of the need date, however, those received less than 30-days prior to the need date may be considered and accommodated based on resource and support availability and as processing timelines allow. With the proper documentation and funding in place, the spaceport partner may request their launch date on the ER and provide that information for inclusion in SIMS and GeoSIMS as outlined earlier.

For Partners requiring specific support and resources from the ER, not already established per Flight Safety requirements, those requests are required to be worked through the ER Scheduling Office. For providers that do not require specific support and resources from the ER, SI-O Office personnel or representatives communicate the Partner's operational and launch dates to the ER Scheduling Office to mitigate or eliminate challenges, conflicts and safety-related controls/clears.

6.0 SCHEDULING PRIORITY

6.1 Scheduling Conflict Resolution

The SI-O office and SI integration contractor serve as the spaceport's impartial integrator to ensure launch provider operations activity and events are supported to the maximum extent possible. As conflicts and overlapping needs for critical support and resources arise, or hazardous clears require attention, the following methodology is followed to ensure a timely response.

a. ER Scheduling Office, support or resource provider, or hazardous operations requests are scheduled on a "first-come, first-served" basis.

b. Every effort is made to resolve scheduling challenges and/or conflicts between support or resource providers, requestors, and relevant stakeholders in accordance with available capabilities and related rules along with partnership agreement language.

c. The SI Spaceport Operations Managers/Partnership Integration Managers and partner integration personnel are to coordinate with requestors and attempt to resolve any scheduling challenges and/or conflicts to mitigate or prevent any unnecessary delays or work stoppages.

d. In the event SI Spaceport Operations Managers/Partnership Integration Managers and partner integration personnel are unable to facilitate an acceptable resolution related to scheduling challenges, the situation is to be elevated to the appropriate senior management (e.g., Program Manager or Launch Director) for resolution.

e. A Master Schedule Conflict Resolution Board (MSCRB) is convened to discuss information regarding the challenges and/or conflicts between spaceport Partners when a solution can not be reached as outlined above. The KSC Center Director and Commander of Space Launch Delta 45, or leadership at higher levels (e.g., NASA Mission Directorate) may be invited to resolve challenges and/or conflicts that remain unresolved. This is most likely, but not necessarily, due to challenges and/or conflicts between NASA, National Security, or other Governmental Programs. To support a resolution to the identified challenges and/or conflicts, the SI-O Office collects information, creates a briefing, invites the appropriate stakeholders, and facilitates the MSCRB, as needed. Results of the MSCRB dictate the actions to be taken to resolve the challenge or conflict.

6.2 Schedule Prioritization

Spaceport support and resources are generally allocated on a "first-come, first-served" basis to maximize the number of operational requirements that can be supported safely and efficiently. Schedule conflicts for shared support and resources are to be coordinated and negotiated with the affected parties to prioritize a plan and schedule accordingly, utilizing existing processes and partnership agreements. Considerations for determining schedule priority at the spaceport are as follows:

a. Support required for approved launch dates or returning spacecraft.

b. Support for critical-path operations in preparation for major tests (e.g., static fire testing, wet dress rehearsal, system verification/validation, and pre-launch), launch and landing/recovery.

c. Maintenance requests for critical maintenance or corrective action required on facilities or facility systems.

d. Continuation of an existing test plan using similar support and resources.

e. Support and resources for a previously established schedule.

The prioritization considerations employed typically put a higher priority on operations activity and events related to pre-launch, launch, landing/recovery, and major milestone/critical path (e.g., Wet Dress Rehearsal).

APPENDIX A: OPEN WORK

A.1 To Be Determined

Table A-1 lists the specific TBD items in the document that are not yet known. The TBD is inserted as a placeholder wherever the required data is needed and is formatted in bold type within brackets. The TBD item is numbered based on the section where the first occurrence of the item is located as the first digit and a consecutive number as the second digit (e.g**., <TBD 2-1>** is the first undetermined item assigned in Section 2 of the document). As each TBD is solved, the updated text is inserted in each place that the TBD appears in the document and the item is removed from this table. As new TBD items are assigned, they will be added to this list in accordance with the above-described numbering scheme. Original TBDs will not be renumbered.

Table A.1 TBD Items

TBD	Section	Description
2-1	2	CLOSED – KNPR 6000.1, Appendix I addresses the new self-escort policy.
2-2	2	CLOSED – KSC-PLN-1300 was created to document the outline to be used by the Spaceport integration contractor to further develop, implement, and manage this process.
3-1	3	SI Applications
3-2	3	SI Application capabilities

APPENDIX B: ACRONYMS

CCSFS	Cape Canaveral Space Force Station
ER	Eastern Range
FAA	Federal Aviation Administration
FDOT	Florida Department of Transportation
GeoSIMS	Geospatial SIMS`
GHe	Gaseous Helium
GN2	Gaseous Nitrogen
KCA	Kennedy Center Agreement
KDP	Kennedy Documented Procedure
KNPR	Kennedy NASA Procedural Requirements
KSC	Kennedy Space Center
KSOP	Kennedy Spaceport Operations Picture
LC	Launch Complexes KSC
MSCRB	Master Schedule Conflict Resolution Board
mW	milliwatts
NASA	National Aeronautics and Space Administration
PDF	Portable Document Format
RF	Radio Frequency
SI	Spaceport Integration and Services Directorate
SIMS	Spaceport Integrated Master Schedule
SI-O	Spaceport Operations Office
SLC	Launch Complexes CCSFS
TBD	To Be Determined
TOR	Task Order Request
USFWS	United States Fish and Wildlife Service
VAB	Vehicle Assembly Building

APPENDIX C: DEFINITIONS

Class 3 Laser	Occupational Safety & Health Administration defines Class 3 Laser as follows: Class 3A: intermediate power lasers (continuous wave: 1-5 milliwatts [mW]). Only hazardous for intra-beam viewing. Some limited controls are usually recommended. Class 3B: moderate power lasers (continuous wave: 5-500 mW, pulsed: 10 J/cm2 or the diffuse reflection limit, whichever is lower). In general Class 3B lasers will not be a fire hazard, nor are they generally capable of producing a hazardous diffuse reflection. Specific controls are recommended.
Class 4 Laser	Occupational Safety & Health Administration defines Class 4 Laser as follows: Class 4: High power lasers (continuous wave: 500 mW, pulsed: 10 J/cm2 or the diffuse reflection limit) are hazardous to view under any condition (directly or diffusely scattered) and are a potential fire hazard and a skin hazard. Significant controls are required of Class 4 laser facilities.
First Responder	KSC Fire/Rescue or KSC Security Police forces.
RF Restriction	Restricts the power output at a specific site (e.g., Global Positioning System IIF-12 RF Restriction Area 59 has a restriction of not more than 20 V/M.
RF Silence	Requires appropriate transmitters turned off. Generally, this refers to radars and, if needed, Command transmitters, depending on the requirements of the silence.
spaceport	Simplified term used throughout the document referring to the Kennedy Space Center spaceport
spaceport partner	Any customer using the spaceport; this includes, but is not limited to: NASA NASA Programs Department of Defense Other Government Agency Commercial